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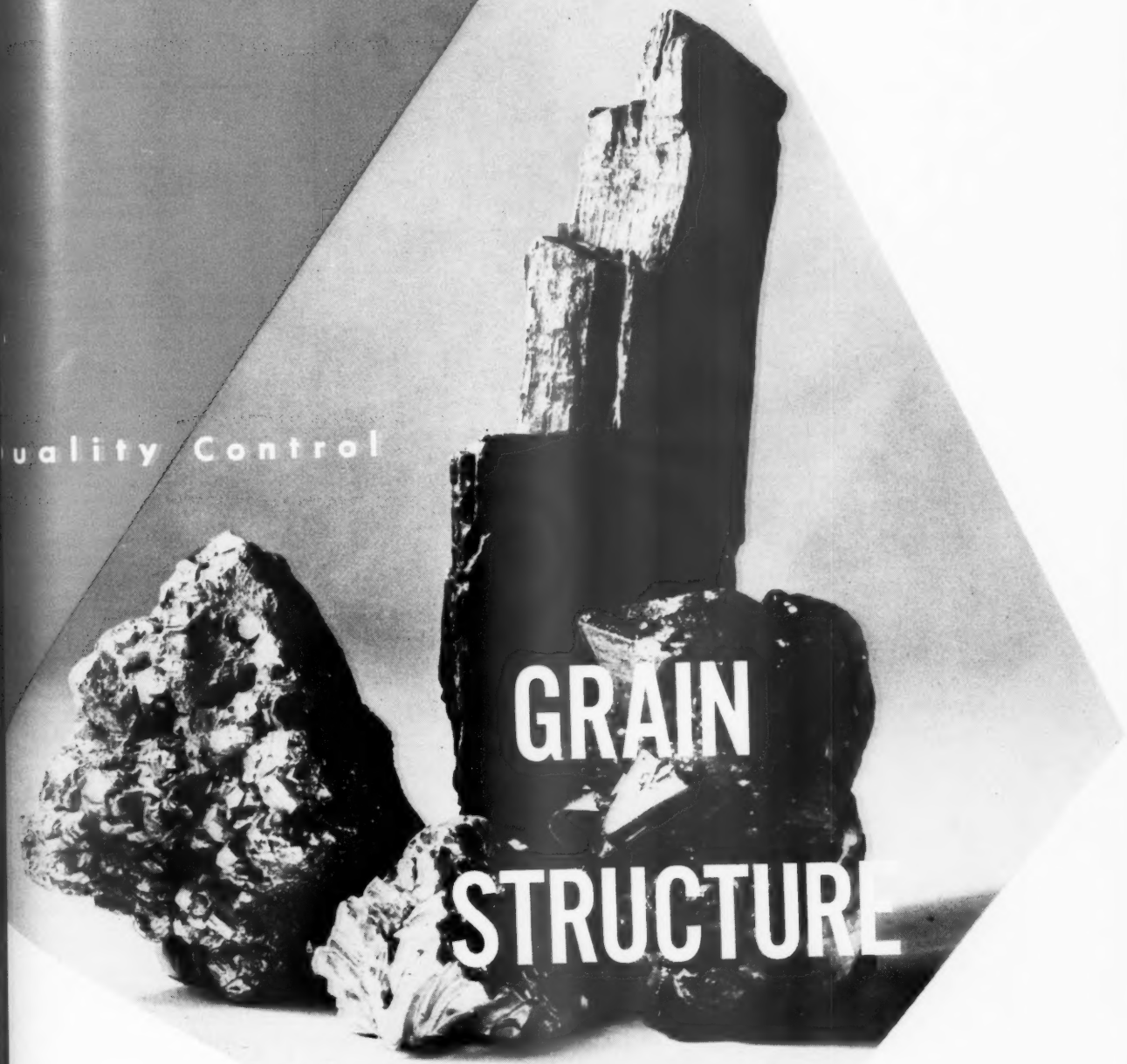

GRAIN STRUCTURE

SEPTEMBER

VOL. XVIII, NO. 9 1959 25c

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TIC

A MAGAZINE FOR
DENTISTS
DENTAL HYGIENISTS
DENTAL ASSISTANTS

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September 1959 Vol. XVIII No. 9

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PUBLISHED MONTHLY BY TICONIUM
413 N. Pearl St., Albany 1, N. Y.

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TICONIUM DIVISION
CMP INDUSTRIES, INC.
ALBANY, NEW YORK

ANNUAL SUBSCRIPTION, $2.50

Opinions expressed by contributors to TIC magazine do not necessarily reflect the views of the publishers.

PRINTED IN THE U.S.A. BY
JERSEY PRINTING CO., BAYONNE, N. J.

By SYLVIA SHERWIN LEVINE

Despite the many advantages of having home and office under one roof, few professional couples consider them when starting to establish a dental practice. So much has been said in favor of the separation of home and office for the professional man that the combination home-and-office arrangement has been regarded as a situation to be avoided like the plague. It is unfortunate that this is the accepted thinking on this matter, and yet it is understandable in light of the habits of many communities from which the wage earner travels or commutes to a place of business. I say it is unfortunate because the other side of the coin has never been shown to advantage, and, as a result, professional couples start out with an inaccurate picture of the whole situation. Let me cite from personal experience.

Twenty-four years ago my husband and I moved to a small community on the north shore of Long Island. He opened his dental office on Main Street and practiced there for four years. Home and office were separate and to all intent and purposes he went off to a job in the morning and returned at night.

Except that neither he nor I was satisfied. His routine left little time for us to be together. He would have liked a larger, more commodious office; I would have preferred a home instead of an apartment. But in light of depression conditions, we thought cautiously and moved slowly before attempting a change. At that time, although it was customary for physicians to have their offices attached to their homes, it was not accepted procedure for dentists to do the same.

Friends warned me I would have no privacy in my own home. Other friends warned my husband he would have no privacy in his office. Our families said that patients would not come to a residential area.

We considered the situation carefully and decided that all objections could be overcome with proper planning.

The combination home and office we built was on a corner plot with the entrance to the office on one street and the entrance to the home around the corner. Inside, a hall separated the office from the home and, with double doors, not a sound could be heard. Our privacy was insured from that angle.

The patients were delighted with the new location, the ease of

parking, and the relaxed atmosphere that trees and grass can help to create.

In the years that followed I was more than thankful we had built our lives under one roof. From the time the two boys were born, they knew their father as well as their mother. When they arrived home from school, their father popped in for just a minute to hear, with me, the latest news of their activities—to be discussed more fully at the dinner table. He knew their friends, participated in their hobbies, and shared their problems. A father who arrives home from his office where he has worked all day has neither the time nor the first-hand knowledge to do as much. If one of the boys and half a dozen friends were mulling over a knotty chess problem, he helped them along when he came into the house for a snack. Or if our other son was encountering difficulty with his electrical experiment or with his hi-fi building, he knew that some time in the afternoon his father would come to his assistance. Moreover, these short breaks provided my husband with a brief respite from his dental chair, easing the pressure and leaving him refreshed and ready to greet the next patient.

Advantage to Health

And that leads us to another advantageous factor in having home and office under one roof. It has generally been conceded that the physical toll of the dental profession far exceeds that of any other. To maintain the well-being of the individual concerned is a problem that confronts the wife of any dentist. With the set-up I am advocating, it is possible for the dentist to take a nap after his lunch, and, during the spring and summer, to read out on the terrace and enjoy the sun. To us, the lunch period, which usually ran for an hour and a half, was eagerly anticipated and fully enjoyed. This was our opportunity to discuss, uninterrupted by the boys, ideas, situations, personalities, household affairs, and to share the experiences we had encountered as each of us had gone about the business of the day. The art of communication between husband and wife flourishes best in a congenial atmosphere. To promote communication is to promote understanding, and yet how many couples have the time or opportunity just to sit down and talk?

On cold, snowy mornings how smug we felt in knowing that no train schedules had to be met nor any car dug out for transportation. So many dentists arrive at their office fatigued before the taxing day even starts.

Financial Factor

From even more practical considerations, there is a tremendous financial saving in having home and office together. Utilities, taxes, repairs and maintenance, gardening, and cleaning help are shared in certain proportion. Basic expenses for one large plant are always less than for two small ones, be they professional or business. Any improvement on the grounds or structure enhances the whole effect and can be enjoyed accordingly.

Does all this add up to a more complicated household for the dentist's wife? Yes, it does. There is more marketing, more planning, more cooking, more supervision, more activity, and more responsibility. There are times when the nurse may be ill, her husband behind schedule, and the telephone has to be answered. But counterbalance that with having him nearby when illness occurs, his very proximity lending a feeling of confidence not always felt when situations have to be met alone. Her day has to be well organized and basic rules set down when the children are small. In our particular case, the boys were not to go into the office for any reason whatsoever. We considered it neither cute nor desirable for them to saunter in and greet the patients. We explained the reason behind the rules and they knew what was expected of them. Nor were any of the details of running the household to be a burden to my husband just because he happened to be there.

All this adds up to quite a job for the dentist's wife. But if any woman marries a professional man, dentist or physician, and doesn't know what lies ahead, she is not approaching her job as professional helpmate very realistically. Certainly it is more work to have office and home combined under one roof. But when we consider the advantages—financial gain, a more closely knit family, less pressure for the dentist, and an enviable way of life—we may conclude that the extra work is well worth the effort.

Therefore, to the young couple who are starting out on a search for the proper home and office and are capable of developing a harmonious reciprocal relationship, may I wholeheartedly recommend practicing and living under one roof.

HYPNOSIS

Photo and text by Authenticated News

Doctor Griffith W. Williams.

One of the scientists responsible for the growing acceptance of hypnosis by the health professions is Doctor Griffith W. Williams of the psychology department of Rutgers. He predicts that its use will mushroom in the next decade.

Even research men concerned with the problems of space travel realize that the hypnotic state may have value for their work, says Doctor Williams. At least one space scientist has gone to India to determine possible usefulness of hypnosis for controlling physical reactions of space travelers.

Doctor Williams was recently honored by the Society for Clinical and Experimental Hypnosis for his thirty years of research in the field. The society is composed of dentists, physicians, and psychiatrists.

Dentistry, medicine, and psychiatry are all using hypnosis to eliminate pain, allay fears, and aid in the treatment of psychiatric patients. Doctor Williams believes hypnosis will one day become a part of general medical training. Some medical and dental schools already include training in hypnosis as part of their course.

What is hypnosis anyway?

"The control of perception, of the intake of the senses, so that everything that enters the subject's mind while he is in the trance state comes from the experimenter," Doctor Williams answers.

The Rutgers professor has spent half a lifetime studying hypnosis, trying to "quantify" its effects.

"We have known for years that hypnosis works, but we don't know why. In this respect, hypnosis resembles many other forms of accepted treatment," he says.

"My work has been to find out what hypnosis is, and how it can be made most effective."

Almost everyone, Doctor Williams reports, has sometime been in at least a mild state of hypnosis.

"Becoming absorbed in music, day dreaming or slipping into a trancelike state from the monotony of a super-highway, are all mild forms of hypnosis," he says.

Incidentally, Doctor Williams was the first person ever to identify road hypnosis, a major concern to builders of modern high-speed highways, who believe it accounts for many otherwise unexplainable accidents.

People who use hypnosis as a form of stage entertainment had better steer clear of Doctor Williams, because his temper rises visibly at the thought of this misuse of the technique.

"Most people who use hypnosis for entertainment have absolutely no idea of the power they are working with," he complains.

His interest in hypnosis and related phenomena of the mind was first aroused by a trip to India, where hypnosis has long been accepted. Doctor Williams took his doctoral degree in psychology, by research on hypnosis, at the University of Wisconsin in 1929. The following year he joined the staff of Yale University exclusively to do research on hypnosis. But the temper of the times was such that opposition from the medical profession forced the Yale program to close.

"I've stuck with my interest in hypnosis during the years when it was generally unpopular and have, in the years intervening, published over twenty articles on the subject," Doctor Williams says, "but I must admit to a certain satisfaction in seeing its present acceptance."

He attributes the long suspicion of hypnosis to "Western culture's avoidance of the highly personal." He points out that other cultures have been using hypnosis or similar trance states in medicine and religion for centuries.

THE BILATERAL FREE-END SADDLE LOWER DENTURE

PART 4: By JOSEPH MURRAY, D.D.S.

For many years the free-end saddle removable partial denture has been designed to replace the natural posterior teeth which have been lost, to prevent overeruption or drift of opposing teeth, to prevent movement of teeth adjacent to the denture base, and to prevent loss of vertical dimension.

Unfortunately, although these requirements have been fulfilled satisfactorily from a mechanical point of view, the restoration has failed from lack of appreciation of the biologic factors involved.

As a result, new concepts of thought have arisen on how to approach the problem of preserving the remaining teeth and the residual alveolar bone.

At the Greater New York Dental Meeting, held in December, 1958, I had the pleasure of attending, as did an enthusiastic audience of dentists, the eminent Doctor Joseph S. Landa's lecture on the free-end base lower partial denture. He advocated:

1. Obtaining unilateral occlusion.
2. Extension of the denture to the retromolar pad area.
3. Semi-precision attachments on the abutment teeth.
4. Fixing the anterior segments to derive strength from splinting.
5. Exertion of force in a vertical direction.

Moreover, Doctor Landa cautioned that concepts do change—as evidenced by the present trend in splinting teeth as opposed to Doctor H. E. S. Chayes' advocacy of precision attachments to allow mobility of teeth in function.

And, to meet the challenge of the partially edentulous mouth, the combined current thinking of some of our leading prosthodontists has been molded into a long-range treatment plan.

Doctor Alexander L. Martone, foremost exponent of this idea, indicates that the philosophy of this treatment is based on the simple rigid clasp-retained partial denture, which can be constructed and maintained by most dentists for the majority of such patients. He suggests that the major objectives are:

1. The economic consideration of the treatment for the patient.
2. The avoidance of unnecessary duplication of effort.
3. The prolongation of the partially edentulous period for the patient.

Doctor Martone illustrates a hypothetical series of various stages of degenerative dental diseases, including planning for the ultimate distal extension restoration. This treatment is not merely adding teeth to an appliance. It is, rather, the control of the total stress loads by keeping them to a minimum and within the tissue tolerance and health of the patient. Thus, a long-term prosthodontic service is offered.

And, as Doctor Martone suggests, emphasis is placed on a continuous consideration of the total welfare of the patient, whose dental destiny is in the hands of his practitioner. The latter's training and experience fit him admirably for the role.

Although it is desirable to restore missing teeth, the adverse effects of unsatisfactorily designed partial dentures should be avoided, says Doctor D. J. Neill.

Normally, in free-end saddle bases, the latter must be joined together by a plate covering the lingual aspect of the remaining teeth and gums or by a bar relieved from the tissues and passing in the lingual or labial sulcus.

Usually, the lingual plate type of connector is well tolerated by the tongue and there is sufficient resistance to lifting of the distal end of the denture.

Stagnation Areas

Where only incisor and canine teeth remain, this type of restoration is preferred, and, if possible, the denture base material should be carried right into the gingival crevice. However, when the lower premolar teeth survive, they invariably have a lingual inclination, resulting in an area of stagnation between the denture and the teeth and gingivae.

Doctor Neill states that to avoid such stagnation areas, rigid connectors running in the sulci are utilized. These bars require an adequate depth of sulcus to accommodate them and are positioned midway between the gingival margin of the remaining teeth and the functional depth of the sulcus.

As for the lingual bar connector, patients usually become accustomed to it. Although widely used, it is not tolerated as well as the lingual plate.

When gross lingual inclination of the lower teeth precludes the use of a lingual bar, then a labial connector can be used to advantage if it is correctly positioned and relieved from the underlying tissues.

Regarding lateral forces that are applied to the free-end denture base, Doctor Neill feels that they are effectively opposed by some form of indirect re-

tainer (portion of a denture which resists the movement of parts of the restoration remote from itself), thus protecting the underlying mucosa and bone from the injurious effects of excessive pressure.

Problems of Overstress

Techniques devised to avoid overstress of the abutment teeth, like splinting the remaining dentition by fixed partial dentures or by employing internal or precision attachments in the abutment teeth, have given excellent results. Unfortunately, high costs have made this service available only to a limited number of patients.

Doctor Neill advocates the floating base partial denture whose construction has been simplified. Its design consists of a single casting which provides the retainer unit and two separate bases supported at each end but allowed a degree of independent movement.

This provides for the even displacement of the underlying mucosa and voids the effects of stress concentration attributable to early loss of residual alveolar bone.

It has been stated that occlusion is dentistry, albeit one of the most neglected aspects of partial denture construction. Accordingly, Doctor William L. McCracken claims that the functional relationship of the partial denture to the natural dentition cannot be adjusted adequately in the mouth. At best, the occlusion thus established only perpetuates malocclusions which existed previously.

He says that too many partial dentures have a negative occlusal relationship with the opposing teeth, thereby providing no occlusal support or balance; or they have a balanced occlusal relationship in centric occlusion, but with disharmony in eccentric positions.

In partial dentures, because the abutments are fixed, occlusal stresses are transmitted directly to the latter and other supporting structures, resulting in sustained force that is more damaging than the transient stresses found in complete dentures. Therefore occlusal harmony between a partial denture and the remaining natural teeth is a major factor in the preservation of the health of their surrounding structures.

Doctor McCracken admonishes that in establishing occlusion on the partial denture, the influence of the remaining teeth is usually such that the occlusal forms of the teeth on the denture must conform to an already established pattern, which may have been improved by occlusal equilibration or rehabilitation. Nevertheless, the pattern present when the partial denture is constructed dictates the latter's occlusion.

Only where a complete denture opposes a partial restoration or where only anterior teeth remain in both arches and the incisal relationship can be made noninterfering, can recording of jaw relations and arranging of teeth simulate that of full dentures.

With all other types of partial dentures, the remaining teeth must dictate the occlusion, unless we are willing to accept only centric occlusal contacts and ignore lateral interference.

Doctor McCracken believes wax interocclusal records or "bites" are inaccurate, especially on free-end bases, because the soft tissues are readily displaced.

He prefers, in such instances, modeling composition occlusion rims which are reduced in height about one-eighth of an inch and serrated. Soft plaster of Paris or zinc oxide and eugenol impression paste is added to make the final recording.

Establishing Occlusion

A popular method of establishing occlusion on the partial denture is that advocated by Doctor Oliver C. Applegate, and highly endorsed by Doctor McCracken. It involves the generation of occlusal paths and the use of a stone or metal template (described in earlier installment) to which the denture teeth are occluded and by which they are modified to accept eccentric movements.

Thus a dynamic occlusion is produced, one that is in functional harmony with the facial skeleton, the musculature, the temporomandibular joint and with the remaining natural teeth—the requirements for partial denture occlusion.

According to Doctor William R. Dykins, the two prime requisites of all tissue- and tooth-bearing appliances are the tissue base constant and centric occlusion.

Since teeth and their adjacent bony regions are designed to support functional traumatic forces within the limits of physiologic tolerance, it should be the first concern of every dentist to eliminate trauma and the resultant tissue cell destruction.

How is this accomplished? In engineering, forces and stresses are dissipated over the broadest area. This must be done likewise with teeth by having continuous, maximum occlusal contact in every functioning jaw relation. This can be realized only by creating occlusal surfaces that are harmonious and compatible with joint physiology.

In order to utilize any edentulous region for the foundation of occlusal function, the development of what has now become known as the tissue base constant precedes all efforts in articulation, says Doctor Dykins. The development of the base segment is the first step in this intimate mucosa-base relationship on which stability depends.

He recommends a spacer-relieved tray that covers the desired region and an impression material that does not demand force to flow and copy. Combina-

tions of zinc oxide-eugenol impression pastes for the edentulous areas and elastic materials for the natural teeth are most effective.

Briefly, it can be said that the tissue base constant originates in the impression, is delivered by the base, and is perpetuated by the articulation.

Doctor Dykins emphasizes that of all factors pertinent to the maintenance of oral function and health, and also for the most part under the dentists control, none is so essential as centric relation. Whether this is accomplished by modifying natural tooth anatomy by grinding, or by fabricating entirely new occlusal tooth surfaces is not too important, he says.

Centric relation must be established because the chewing stroke is a dynamic series of occluding tooth surfaces; therefore, correctly relating the involved parts to each other is mandatory.

1358 46th Street
Brooklyn 19, N. Y.

Part 5—Next Month.

A CASE IN POINT

By MAURICE J. TEITELBAUM, D.D.S.

The acquisition of new patients is the concern of every dentist who is active in his profession. For additional patients mean an expanding practice and subsequently greater income. Men who have been successful in this economic phase of dentistry have told us that, in addition to professional knowledge and experience, good salesmanship, a winning personality, the correct psychological approach to patients, and being a "joiner" are important in attracting new patients. All that may be true. But there is another factor that plays an important part in the growth of a dental practice, or for that matter, any other profession or business. Let me illustrate my point by a true personal experience.

A few years ago, on my day off, I stopped at a nearby luncheonette to purchase some pipe tobacco. I had frequented this place only a few times, and since the proprietor was busy I stood idly by looking over the establishment. I was particularly interested in the wood paneling, for I had been contemplating paneling my den. When the proprietor gave me my tobacco, I casually asked him who did the panel work. He mentioned the man's name, reached behind the counter, and handed me the carpenter's card. I put the card in my jacket and forgot the episode until my wife prepared my suit for the cleaners the following week and found the card. I told her about the wood paneling I had seen, and she suggested I call the carpenter. That evening I contacted him, and the next day he stopped by the house to discuss the work with us and give us an estimate. My wife and I were both surprised to see that he was a young man, barely twenty-five. The job was a sizable one that included paneled walls, built-in book shelves, a matching desk, and storage cabinet. The enthusiasm and apparent integrity of the carpenter, plus the fair price, so impressed us that we told him to proceed with the work. The job was completed in two weeks to our complete satisfaction, both in workmanship and in the pleasant relationship that we experienced.

A few weeks later, without any previous inkling that he would do so, the carpenter called my office for a dental appointment. I completed his work. He directly recommended nine patients to me. In the two years that followed, thirty-four additional patients were added to my practice from the nine patients that he had directly recommended to me. In the forty-three patients I saw that stemmed from this one individual, I have completed seven full dentures, one partial bridge, fifty-one units of bridgework, and a goodly amount of operative work.

I am sure that most dentists could tell similar stories—which only seems to point out how important the element of luck is in the growth of a dental practice. No matter how good my salesmanship was, or what sort of personality I have, in this case, as in so many others, it took luck to begin the chain reaction. A chance stop at a store for tobacco and a wait for service gave me the opportunity to add forty-four patients to my practice that I probably never would have seen.

446 Clinton Place
Newark 12, N. J.

IN THE MIDDLE OF THE NIGHT

By KAY LIPKE

The telephone rang shrilly in the darkened room. Emerging slowly from a fog of sleep, the dentist groped for the telephone receiver on the bedside table and muttered, "Hello".

The dentist's wife found the bedside lamp and switched it on. The hour was one-thirty in the morning. Drowsily she listened, while her husband asked: "When did it start? . . . . How bad is it? . . . . How soon can you get down to my office? I'll meet you there in twenty minutes."

Without a word of explanation, he climbed out of bed and disappeared to get dressed. For an instant the dentist's wife lay sleepily in the comfort of her bed, and then suddenly she came alive in a hurry.

For the past few years she had been trained to help out in the office in an emergency, and certainly this was an emergency. In all the years she had been married, she could not remember her husband feeling such an instant and great concern over a patient's call. In fact, it had been years since there had been any after-office patient calls of any nature that she could remember. This must be really an emergency.

"You don't need to come with me," her husband told her. "Stay here and get some sleep."

She did not answer. She was busy getting her dacron uniform, which was kept ready—just in case.

In seven minutes from the time of the telephone call, they were driving through the city streets on their way to the office. For the dentist's wife there was something rather exciting about this hurried ride through the silent city streets in the middle of the night.

It was not exciting for the dentist, however. He was badly worried. Several days ago he had taken out a tooth for a patient who had suffered two coronaries and whose health was in a very precarious condition. For a great many months he had been on an anticoagulant to prevent his blood from clotting and thereby lessen the danger of another coronary.

Naturally, an anticoagulant is a dental surgeon's menace, and in this case the dentist had been assured by the heart specialist on the case that the patient had been taken off the anticoagulant, and vitamin K had been administered in preparation for the extraction. The doctor had given the dentist a complete green light on the extraction, and now, to his dismay, the dentist learned that the patient had not been taken off the anticoagulant—and was hemorrhaging badly.

Within fifteen minutes from the time of the call, the dentist and his wife had entered the downtown office building, alerted the night watchman, and were taken up to a top floor in the freight elevator. As they stepped out, a bell rang down in the lobby. The patient and his wife had arrived.

By the time they reached the office, the dentist had his main operating room ready, with an impressive array of medication and equipment at hand. The dentist's wife ushered the patient into the chair and fastened the towel around his neck, meanwhile smiling reassuringly at his very nervous young wife.

The dentist, without a waste motion, went to work to stop that extensive hemorrhage. If, in his heart, he was thinking black and bitter thoughts about the physician who had failed in his duty toward his patient, he did not show it. His manner was quiet and encouraging, and the hemorrhage was stopped without too much difficulty.

It was nearly three in the morning when the two couples said good-by in the lobby of the building. The patient and his young wife were warmly grateful to the dentist. They climbed into their car to hurry home to two small children whom they had been compelled to leave sleeping in the house alone while they were gone.

The dentist and his wife drove home more slowly than they had come, tired and relieved, and at peace. For the dentist's wife it was a new and stirring experience, and she was deeply grateful that she had chosen to leave her bed and go down to the office with her husband when the telephone rang in the middle of the night.

1993 Lucile Avenue
Los Angeles 39, Calif.

An itinerant "dentist" on the streets of Sa[illegible]shortage [illegible] of such legislation as Borneo now has.

MORN
DENTR
FOR RN

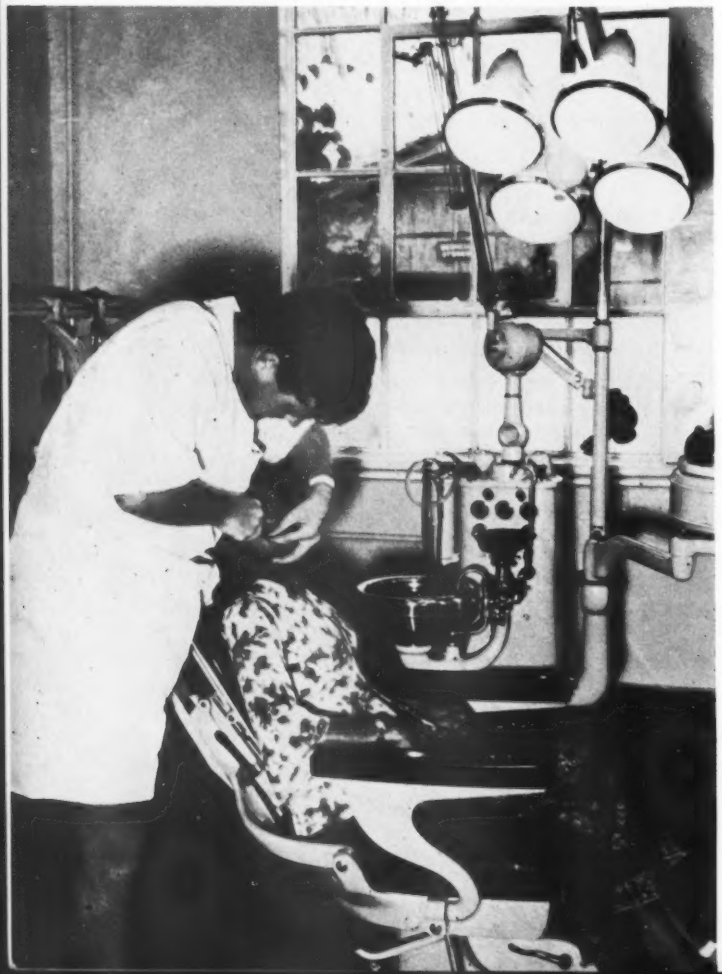
By CHAIN

Americans are accustomed to immaculate dental offices. They expect a skilled dentist and a minimum of pain while he works. Strict laws require a lengthy training and testing of dentists before they practice on patients in the United States, but not so in Borneo. Not, that is, until 1957.

The year 1957 was a black year for the bazaar "dentists" of British Borneo, where in the recent past tribesmen earned the term "wildmen" by their headhunting prowess. That year a new law for the first time required Bornean dentists to take examinations and to study their profession in school before they start practicing it on the public. For centuries they have freely pursued their work in the public bazaars of Borneo with little concern for the niceties of hygiene and less for legal restrictions.

Some of these "dentists" keep regular shops on the market places of the larger towns. Others are itinerant practitioners who ply the rivers in canoes to reach isolated inland *kampongs* or villages. They carry with them their "chair" and tools. An assistant helps to paddle the canoe and also to restrain a resisting patient during a difficult extraction. The itinerant's work is usually done in the open air before an appreciative audience of small children and a l[illegible] me[illegible] fo[illegible] his[illegible]

(W. F. Runagall, Borneo Bulletin)
An enlightened Malay woman patient appreciates better dentistry.



The itinerant "dentist" (see photo abov[illegible] bottles teeth to prove his prowess.

eets of Sa shortage of dentists precludes enforcement
w has. *(Chester A. Bain)*

MORN
ENTRY
RNEO

By BAIN

re-
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be-
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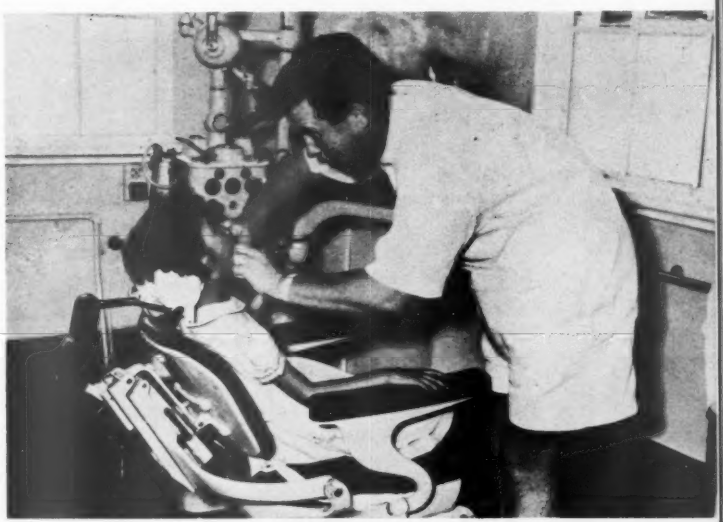
a less enthusiastic one of prospective patients. Formerly the assistant could hope to go into business for himself after he learned the trade and bought his own equipment.

hoto abov bottles of "pain-killers" and a box of
(Chester A. Bain)

Some Have Modern Equipment

A few of Borneo's dental practitioners have good modern equipment and well-appointed offices, but too many have instruments and techniques handed down from their ancestors. A small percentage hold degrees which would entitle them to practice in London, but most have learned their trade by apprenticeship or even less formal methods. Despite their lack of formal training, however, a number of the more conscientious bazaar practitioners have developed a fairly high degree of knowledge and skill. Others, unfortunately for their victims, have little skill, less knowledge, and still less regard for fundamental rules of asepsis.



A Chinese child undergoing an extraction.
(W. F. Runagall, Borneo Bulletin)

It is this latter group that the new law seeks to eliminate. To practice dentistry in Brunei hereafter, one must either have graduated from an accredited dental school or have passed a local examination. Only those who have practiced dentistry for five years may take this examination. Others must go to a dental school if they wish to enter or stay in practice. Those who practice illegally face a fine of $1,000 and imprisonment up to five years.

Legal Standards

The law requires that dentists be skilled but not necessarily literate. The examination is both oral

Doctor J. Stott of the Brunei Shell Petroleum Co. in his well-equipped office.
(W. F. Runagall, Borneo Bulletin)

and practical. Oral questions cover general knowledge of dental hygiene and surgery, use of common drugs, control of bleeding, treatment of jaw swelling and fractures, and reviving of collapsed patients. The practical test requires proficiency in taking impressions for artificial teeth, filling teeth, and extracting teeth under local anesthetics. The applicant is required to bring his own patient.

The candidate's equipment and office are also inspected both for quality and degree of hygienic working conditions. While untrained newcomers are automatically eliminated from further practice, the older practitioners are liberally given several months to brush up on modern methods before facing examination.

Painful though this may be for Borneo's "dentists," it should make for considerably less pain for their future patients.

707 Osage Street
Normal, Ill.

In the Streets of Saigon

In Saigon the dentist, or tooth-puller, as he might more properly be called, sat on a stool before his little display of extracted teeth, instruments, paper folders of powders, and Mason jars of colored fluids. When a patient arrived for an extraction, he injected an enormous dose of one of his colored fluids and started pulling before it anesthetized the patient's jaw.

He was most agreeable about having his patient and himself photographed and gave me his best profile. The patient was too miserable to notice or care.

Only a few feet away I came upon another practitioner performing the ancient art of acupuncture. This consists of treating ailments by sticking little needles into various parts of the body where nerve centers are believed to be located.

AT YOUR SERVICE:

WHAT THE ADA MEANS TO YOU

PART 8: By JOSEPH GEORGE STRACK

The fair is one of the oldest and most popular characteristics of our culture.

In this atomic age, something has been added to it –science. In fact, in the last decade a whole new pattern of fairs–science fairs–has developed, and the National Science Fair has become an annual event in American life. All this started with thirteen affiliated area fairs, which mushroomed into the national event. This year there were more than 150 area fairs – and countless thousands of local school fairs. Two more statistics and we'll stop: nearly five million people saw over 400,000 science exhibits at these fairs in 1959.

In case you don't know about the National Science Fair (held every spring): it is an annual event in which exhibits selected from thousands of high school fairs are displayed by the successful finalists. The winners of these school fairs participate in state or regional fairs, and top projects from these expositions proceed to the National Science Fair.

This science fair program offers dentistry the best public-relations vehicle since the creation of Children's Dental Health Week. Here's why:

1. It identifies dentistry more clearly and more effectively as a scientific profession.
2. It interests and informs the general public through impressive, practical demonstrations of dental projects, just as medical exhibits do in that area of health.
3. It provides evidence of dentistry's concern for improving the public health, and gives the public some notion of dental research, of a mature profession seeking new ways and means of extending better oral health to more people.
4. It gives dentistry a chance to tell its story to millions of adults and young people with, one may assume, above-average intelligence.
5. It offers an excellent means of influencing an ideal audience of science-minded youngsters to consider careers in dentistry–general practice, specialities, research, or allied work.
6. It sets up opportunities for constructive, pertinent newspaper and other mass-media publicity, which comes to the attention of millions of non-fair goers.
7. It shows, in a favorable light, dentists who work with students on fair dental exhibits, thus developing better relationships for the dentists in their communities and building much goodwill for dentistry in general.
8. It offers, as an indirect community benefit, what one might consider to be a character-building, knowledge-building, anti-delinquency program.

Doctor Sholom Pearlman, Assistant Secretary of the ADA's Council on Dental Therapeutics, who has sparkplugged the program of getting dentistry adequate representation in science fairs, makes this potent point:

"There is no question that the competition of the various professional and scientific schools for the best students is increasing and will continue to increase in the years ahead as the demands of industry, commerce, and the scientific fields grow. Reports from many of the dental schools indicate that there is increasing difficulty in securing the very best students because of the tremendous competition from other fields of study. The dental profession, if it is to continue making great advances in the fields of research, teaching, and practice, will need to give more attention to the ways in which it can attract the most promising students. An active interest and participation in the science fairs would seem to be one of the best ways in which this can be done. What better way is there to acquaint young people with the potentials of science and research in dentistry than to impress upon them at an early age the developments that are yet to be solved, and to show them that the persons now in the profession have a sincere interest in the future progress of this field?"

Finally, the ADA puts it all in a compelling slogan: "For better dental students, better dental educators, better dental research, better public appreciation of dentistry–get into the science fair movement with your dental society!"

And, if you want to know exactly how to participate, Doctor, the ADA spells it out like this:

Your society's participation in the science fair movement can best be brought about through a standing or special committee authorized to plan and carry out the program. The following steps are

recommended:

1. Establish a science fair committee in your society.
2. Through the principal's office, contact the science teachers in your high school system. Establish liaison with the science fair director in your community.
3. Put on a dental science night for high school students and teachers. Set up table clinics; have a speaker, from the nearest dental school or research center, if possible; distribute the ADA booklets, *Dental Projects for High School Science Students* and *Careers in Dentistry*; and show the film, "A Career in the Profession of Dentistry."
4. Suggest additional dental science exhibits to science teachers and provide professional guidance to exhibitors. (See "Dental Science Topics," published with this article.)
5. Secure financial support for the local or state science fair from your dental society and from individual dentists.
6. Award special citations to those who display dental science exhibits at the local fairs. Publicize the ADA awards to be given at the National Science Fairs. (See the ADA reprint, *Association Launches Science Fair Program for Centennial*.)
7. Serve as the co-host at the local and regional awards luncheon or banquet.
8. Arrange for tours of dental schools and other dental facilities in your community for the students and teachers.
9. Invite the exhibitors of the best dental science projects to display their exhibits at district or state dental society meetings.
10. Encourage members of your dental society to hand out dental science fair literature to their school-age patients.
11. Ask members of your dental society to attend the local and state science fairs, and serve as judges whenever possible.
12. Publicize dentistry's participation, and do this in all available media.

You will want to have all the information you can get about the operation of science fairs. The place to get that advice is Science Clubs of America, Science Service, 1719 N Street, N.W., Washington 6, D.C.

Doctor, this is the month to plan for the science fairs of 1960. Help bring dentistry into its own in this great field of public communication. Make this important program a permanent part of your dental society's activities—from here on out.

Dental Science Topics

BIOLOGICAL SCIENCE

1. Gross structure of the completed tooth
2. Microscopic structure of the completed tooth
3. Comparative dental anatomy
4. Embryology of the tooth
5. Chronology of eruption
6. Principles of occlusion: natural and artificial dentition
7. Malocclusion
8. Acquired dental defects
9. Cavity formation: the progress of dental caries
10. Epidemiology of dental caries
11. Fluoridation of drinking water: methods and results
12. Pulp conservation
13. Endodontics
14. Periodontitis: the progress of periodontal disease
15. The temporomandibular joint in health and disease
16. Oral bacteriology
17. Antibiotics in dentistry
18. Disinfection of dental instruments
19. History of dental anesthesia, local and general
20. Cleft palate: its development and correction
21. Dentition in youth and senescence
22. Orthodontics: a biophysical science
23. Sugar and dental caries
24. Dental decalcification by certain foods and chemicals
25. The tooth brush
26. Dentifrices: their purpose and limitations

PHYSICAL SCIENCE

1. History of denture base materials
2. Dental filling materials: characteristics and uses
3. Amalgam: properties and applications
4. Dental cements: properties and applications
5. Casting a gold inlay
6. Principles of cavity preparation
7. Crowns and bridges
8. Fashioning a prosthetic denture: the art and the science
9. The porcelain jacket crown
10. The dowel crown
11. The partial denture: design and fabrication
12. Precision attachments: advantages, disadvantages and technique
13. History of denture retention: from wires to implants and magnets
14. Fabrication of orthodontic appliances
15. The polymerization of dental resins
16. Denture impression and base materials
17. Expansion of dental materials: in setting and with heat
18. The setting of dental amalgams, cements and plasters
19. Thermal changes during the solidification of dental cement, amalgam and plastic filling materials
20. Thermal effects with various dental cutting instruments
21. Crystallography of dental materials
22. Crystallography of dental enamel and dentin
23. Coloring dental porcelains
24. Dental cutting instruments: manual
25. Dental cutting instruments: power driven
26. George Washington's dentures

A CENTURY OF PROGRESS: DENTAL EQUIPMENT

PART 9: By CURT PROSKAUER, D.M.D.

Porcelain dentures were made for the first time in Paris, in the seventeen-seventies. Forty years later, the single porcelain tooth was invented by the Italian dentist Giuseppangelo Fonzi, who, around 1810, constructed the first special furnace for baking these teeth.

In 1817, when the Parisian dentist A. Plantou came to Philadelphia and introduced the first porcelain teeth in this country, he and other American dentists had to make their own, since ready-made porcelain teeth were not yet available. For this purpose, various kinds of furnaces were constructed. One was the muffle furnace introduced in the eighteen-forties. It had four openings: the upper one formed the collar for the stove-pipe; the round one was for the fuel supply; the middle one was the muffle door, and the lower one was the ash-pit door.

Various molds were used for different kinds of teeth—incisors, cuspids, bicuspids, and molars. The molds consisted of an upper and lower piece of wood or metal, fastened together with screws. The holes for the pivot teeth were made with a chisel.

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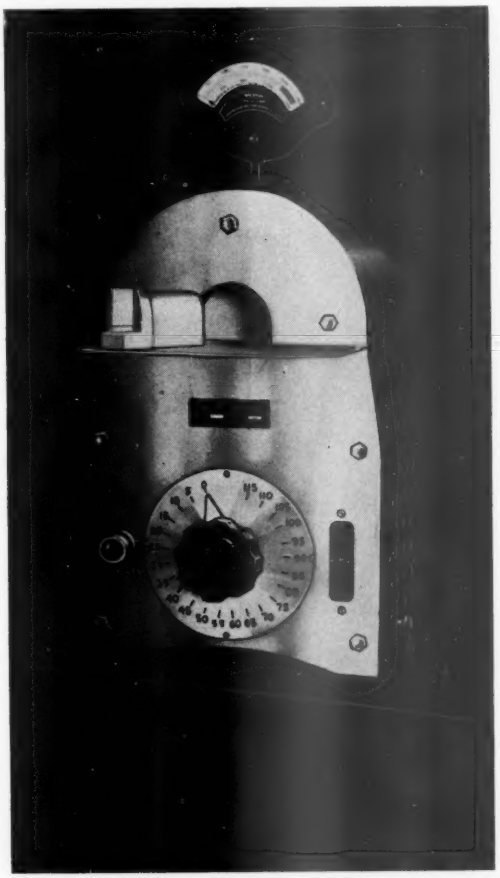
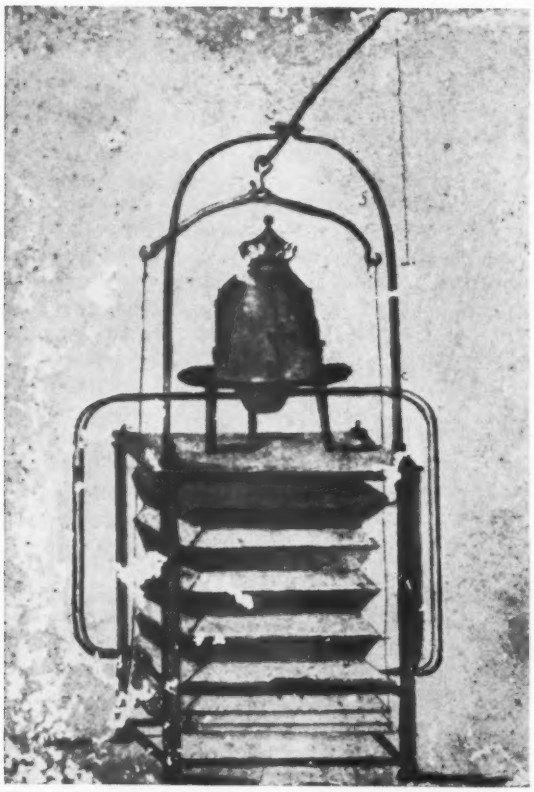
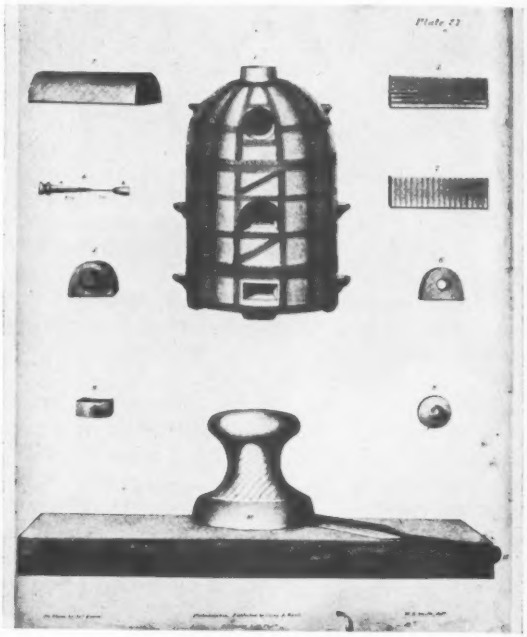


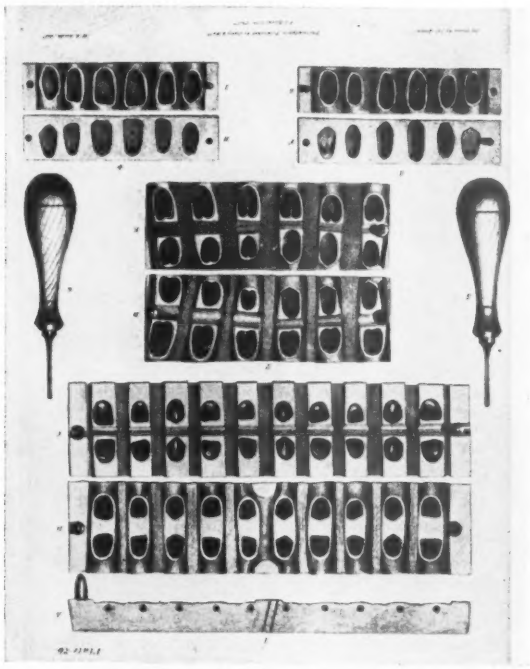
Platinum-wound resistance furnace. Courtesy, Baker Dental Division, Engelhard Industries, Inc., East Newark, N. J.



First special furnace for baking porcelain teeth. Constructed by Giuseppangela Fonzi. About 1810.



Muffle furnace. 1844.



Molds for various kinds of teeth. 1844.

SPARK YOUR MEETINGS

By HARRY CIMRING, D.D.S.

More and more state dental societies and dental alumni associations are turning to a hobby exhibit to add sparkle and spice to their annual meetings.

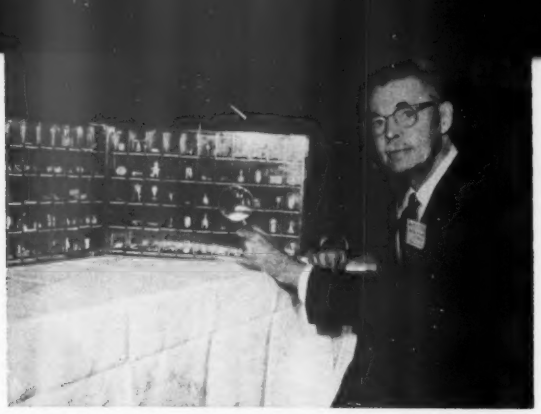
This is the feeling of Doctor Harold Holt, president-elect of the University of Southern California Dental Alumni Association, as his organization enters its second half-century. Doctor Holt points to the apparent health of his group in the form of over 2,100 paid members. The annual meeting is the chief event put on by the association, and the hobby exhibit is an important element in making that event a successful and pleasurable occasion.

Arts and crafts, which cover a wide variety of activities, seem to be the mainstay of these shows, since dentists in exceptional numbers turn to them, perhaps as an outgrowth of the type of work they do for a livelihood. Floriculture, which might be described as an art or craft, or neither, is a particular favorite. The fourth large category of pastimes are the sports, of course. Finally, there are the miscellaneous avocations that can't be categorized, but which none-the-less attract dentists in their non-professional hours.

It is interesting to note that on numerous occasions dentists have become so proficient, successful, or interested in a hobby that it develops into a part-time, secondary, or full-time vocation.

It is felt that the hobby exhibit provides a relaxing counterpoint to the scientific and professional portion of the meeting. It attracts not only fellow hobbyists, but also the general membership, as well as the wives, dental assistants, and dental hygienists.

A recent meeting's list of hobbies included camellia culture, ham radios, a Hammond organ recital, horse breeding, life among the Navajos, oil painting, mosaics, furniture finishing, journalism, song writing, yachting and sail boating, leatherwork, water colors, and flower arranging.



Doctor William P. Harrison of Hollywood, Calif., and his wax carvings.

Doctor Thurston Ross of Los Angeles, Calif., and his mounted birds.

Doctor Sydney Garfield of Beverly Hills, Calif., and his tropical fish.

Doctor Harry Cimring of East Beverly Hills, Calif., and Doctor Milo A. Sweet of Altadena, Calif., at a meeting of the alumni of the University of Southern California. Doctor Cimring demonstrated his hobby, journalism; and Doctor Sweet exhibited copies of his songs. Doctor Robert L. Borland of Los Angeles, Calif., took the photo.

Along these lines also were the hobby shows held by the Washington and Kentucky state dental associations in connection with their recent annual meetings. Among the features were a five-way stereophonic sound system, a drawing exhibit of the moon's surface and outer space pictures, and a demonstration of hunting by archery.

The 51st Meeting of the U.S.C. Dental Alumni Association had for its theme "Shoot for the Moon" (dental progress is on its way). Alumni members were admonished: "Don't misfire! —Save the date!" The program included a nationally prominent guest essayist, table clinics, dental hygienist participation, hobbies, exhibits, a luncheon, social hour and complimentary buffet.

Doctor Ubo W. Riedel of Sepulveda, Calif., at the Hammond organ.

The meeting was moved out of the dental college four years ago to gain better facilities, as well as dining and liquid refreshment accommodation. Length of the meeting was reduced from three days to one, making the event more action-packed, peppier, more convenient, and, in the end, more successful.

Aside from its annual meeting, the alumni group sponsors a senior breakfast, student scholarships, a tri-yearly bulletin, and a parallel group, the Century Club, which raises money for the school.

Dental Practice 100 Years from Now

The typical dental practice of the future will be conducted by an operating team and not by a dentist functioning as a one-man operator as in the past.

This prediction was made by a dental educator writing in the June issue of *The Journal of the American Dental Association.*

Speculating on "Dentistry Tomorrow," Doctor Willard C. Fleming, dean of the School of Dentistry, University of California, declared that the dentist "will have to operate with more than his own two hands to meet the increasing demands for his services." He will have to employ well-trained auxiliaries—the hygienist, the dental assistant, and the dental laboratory technician.

The team type of practice, the dental educator asserted, will result, not because "so-called socialists" advocate it, but because:

The recognized and traditional sources of dental manpower (dentists) are not being developed rapidly enough to meet mounting needs.

The public requires a constantly greater amount of efficient health service at fees that fit into the average family budget.

He labeled as "tremendous" the potentials of such an operating team, especially if directed by a dentist skilled in both technological and administrative procedures.

In another prediction, Doctor Fleming said that greater health insurance coverage appears in the offing. He expressed belief that this will be accomplished through joint state-federal or privately supported programs rather than by a single federal insurance plan.

Doctor Fleming attributed dental advances and developments both in the technical and biological fields to research discoveries. Since research is doubling in volume yearly, he said it is certain that further progress will be made in the dental profession.

Time and imagination are the only limits, he continued, for man always has been able to accomplish what he has imagined.

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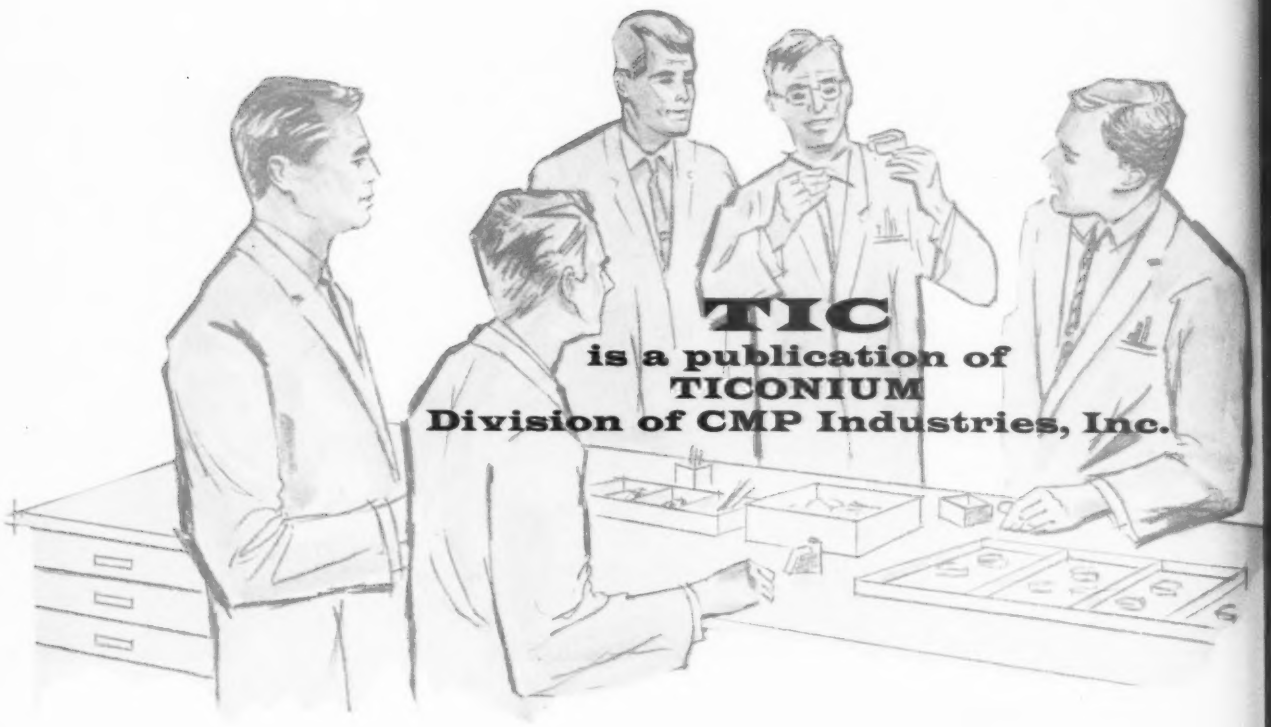

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